

Claims

We Claim:

1. A method for applying an elastic member to an article web defining a pair of article web side edges, said method comprising:

- i) providing said elastic member, wherein at least a portion of said elastic member is elongatable in at least a cross machine direction and defines an elastic member width;
- ii) moving said elastic member in a machine direction along an elastic member web path;
- iii) providing a pair of rotatable wheels in said elastic member web path, said pair of wheels defining:
 - a) a pair of inboard edges,
 - b) a pair of outboard edges opposite said inboard edges,
 - c) an elastic member entry location having an elastic member entry location width that is less than said elastic member width, and
 - d) an elastic member exit location having an elastic member exit location width that is greater than said elastic member entry width;
- iv) engaging said elastic member with said pair of wheels at said elastic member entry location wherein a portion of said elastic member is located beyond each of said inboard edges of said pair of wheels thereby defining a pair of outboard portions of said elastic member and an inboard portion of said elastic member;
- v) rotating said elastic member with said pair of wheels; and
- vi) applying said elastic member to said article web proximate said elastic member exit location wherein said outboard portions of said elastic member extend beyond said article web side edges.

2. The method of claim 1 wherein providing said elastic member comprises:

- i) providing an elastic material web;
- ii) forming a line of weakness in said elastic material web to define a trailing edge of the elastic member;
- iii) cutting said elastic material web to define an leading edge of the elastic member; and
- iv) separating said elastic material web at said line of weakness into discrete elastic members.

3. The method of claim 2 further comprising:
 - i) providing an adhesive application assembly; and
 - ii) applying an operative amount of adhesive to said elastic material web.
4. The method of claim 3 wherein said operative amount of adhesive is applied in a rectilinear pattern.
5. The method of claim 3 wherein said operative amount of adhesive is registered with said leading edge and said trailing edge.
6. The method of claim 3 wherein said operative amount of adhesive does not contact said pair of wheels.
7. The method of claim 2 wherein said trailing edge is curvilinear.
8. The method of claim 2 wherein said trailing edge defines "w" shape.
9. The method of claim 1 wherein engaging said elastic member comprises holding said elastic member on said pair of wheels with vacuum.
10. The method of claim 1 wherein engaging said elastic member comprises holding said elastic member on said pair of wheels with a pair of transfer bands.
11. The method of claim 10 wherein said pair of transfer bands wraps said pair of rotatable wheels at least between said entry location and said exit location.
12. The method of claim 10 comprising:
 - i) providing an adhesive application assembly; and
 - ii) applying an operative amount of adhesive to said web of elastic material;wherein said adhesive does not contact said pair of wheels or said transfer bands.
13. The method of claim 1 wherein rotating said elastic member with said pair of wheels elongates said inboard portion of said elastic member at least 50%.
14. The method of claim 1 wherein said pair of wheels each further define a wheel diameter of from between 0.3 meters to 2.0 meters.

15. An apparatus for applying an elastic member to an absorbent article comprising:

- i) a pair of rotatable wheels, said pair of wheels defining:
 - a) a pair of inboard edges,
 - b) a pair of outboard edges,
 - c) an outer surface,
 - d) an elastic member entry location having a first distance between said inboard edges, and
 - e) an elastic member exit location having a second distance between said inboard edges that is larger than said first distance;
- ii) a wheel drive system connected to said pair of wheels for rotating said wheels about said central axis; and
- iii) a vacuum system connected to each of said wheels wherein said vacuum system includes a plurality of openings in at least a portion of the outer surface and at least one source of vacuum.

16. The apparatus of claim 15 further comprising a pair of transfer bands, wherein each of said bands individually wraps at least a portion of one of said pair of wheels.

17. The apparatus of claim 16 wherein said bands wrap said pair of wheels at least from said entry location to said exit location.

18. A method for attaching an elastic member to an article comprising:

- providing an article web having opposing article web side edges and defining between said article web side edges a chassis width;
- providing a plurality of elastic members each having an inboard portion and a pair of outboard portions;
- stretching said inboard portion such that said elastic members define a stretched length that is greater than said chassis width; and
- attaching the inboard portion to said article web between the article web side edges.

19. The method of claim 18 wherein said outboard portions are further elongatable in use.

20. The method of claim 18 further comprising separating the article web into a plurality of articles, and wherein said elastic members provide waist elastics and a pair of ears on said articles.